

REMARKS

The Examiner is thanked for the careful examination of the application, and for the suggestions for amending the application. In view of the foregoing amendments and the remarks that follow, the Examiner is respectfully requested to reconsider and withdraw the outstanding rejections.

35 U.S.C. §112, First Paragraph:

Claims 1-32 have been rejected under 35 U.S.C. §112, first paragraph. In response to that rejection, the claims have been amended using the language suggested by the Examiner. Accordingly, the Examiner is respectfully requested to reconsider and withdraw the rejection of claims 1-32 under 35 U.S.C. §112, first paragraph.

Drawing:

In response to the objections to the drawings, a proposed drawing correction is submitted herewith illustrating schematically the card element. The card element is now represented by reference numeral 9 and is located in the air-doffing apparatus 1.

Accordingly, the Examiner is respectfully requested to reconsider and withdraw the objection to the drawings.

Art Rejections:

Claims 1-3, 7-10, 29 and 31 have been rejected under 35 U.S.C. §102(b) as allegedly being anticipated by, or in the alternative, under 35 U.S.C. §103(a), as being obvious over U.S. Patent No. 4,018,646, hereinafter *Ruffo*. Claims 1 and 29 are independent claims defining an absorbent material and an absorbent structure, respectively. The absorbent material of claim 1 includes a layer of non-woven gauze onto which a layer

of cellulose fibers is dry laid. In addition, the claim indicates that the layers are laid together so as to achieve a sufficient bonding without any bonding agent. Claim 29 defines an absorbent structure including cellulosic fibers reinforced with textile fibers, wherein an absorbent material is made by directly dry laying a layer of cellulose fibers on a layer of non-woven gauze. The layers are arranged so as to achieve a sufficient bonding without any bonding agent. Accordingly, both claims 1 and 29 define a material having two layers, one a layer of textile fibers and the second a layer of non-woven gauze.

In contrast to the structure of claims 1 and 29, *Ruffo* discloses a material that is laid substantially simultaneously. Note in Figure 1 the staple fibers and the pulp fibers are combined in the mixing zone 334. See column 17, lines 53-57. Furthermore, note that since the fibers 332 and 340 are mixed in the mixing zone 334, the "intermixed" fibers pass through duct 352 to be laid on the screen 381. See column 18, line 52. As a result of the process by which the product 440 in *Ruffo* is made, there are not two separate layers. Instead, the pulp fibers and rayon fibers are intermixed throughout the web. See column 21, lines 50-55, wherein it indicates that there is at least 10% of each fiber at each face of the web.

In making the rejection, the Examiner alleges that "Once the Examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product." In view of the fact that the two layers *as defined according to claims 1 and 29* are laid sequentially, not simultaneously, it is clear that the

resulting product will be different than the product created by *Ruffo*, wherein the two layers are laid substantially simultaneously. As a result, there will be more separation of the fibers at the faces of the web in the structure of claims 1 and 29 than would be taught by *Ruffo*. In particular, according to the present invention, because the cellulose fibers are laid on top of the non-woven gauze, there would be substantially no gauze fibers at the face of the web formed from the cellulose fibers. This is in contrast to the web of *Ruffo*, wherein each face of the web has at least 10% of each fiber in it. See column 21, lines 50-55, wherein it indicates that there is at least 10% of each fiber at each face of the web.

Ruffo does disclose an embodiment wherein the baffle 400 is moved close to the belt. See column 22, lines 17 - 34. Although the specification states that, as the baffle is moved downwardly, the intermediate layer becomes thinner to the point where "the individual streams are effectively prevented from combining with one another, so that a two layer web 434 (Fig. 10) is produced consisting essentially of a layer of long fibers 436 and short fibers 438 that are interlaced at the interface therebetween." Column 22, lines 29-34. However, applicants submit that, in spite of the language of *Ruffo*, there will always be some mixing of the fibers. Thus, the mixing in *Ruffo* results in less clear gradients between the layers than would be achieved by the present invention.

Furthermore, claims 1 and 29 define laying the cellulose fibers on to the gauze of textile fibers. This results in the possibility that some of the cellulose fibers will penetrate into the gauze of textile fibers, but not vice versa. In contrast to the present invention, *Ruffo* discloses the opposite order, i.e., the staple fibers would be placed on top of the pulp

fibers, due to the direction of travel of the belt 381, as seen in Figure 1. This would also result in a different structure than the claimed invention.

Accordingly, *Ruffo* does not teach or suggest the structure of claims 1 and 29.

Claims 2-3, 7-10, and 31 depend from either claim 1 or 29, and thus are at least patentable over *Ruffo* for the reasons set forth above with respect to claims 1 and 29.

Accordingly, the Examiner is respectfully requested to reconsider and withdraw the rejection of claims 1-3, 7-10, 29, and 31 over *Ruffo*.

Claims 1-32 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 3,984,898, hereinafter *Matsumura*, in view of *Ruffo* and U.S. Patent No. 4,972,551, hereinafter *Fehrer*.

Matsumura discloses a multi-layer fibrous structure that is formed from a layer of rayon and a layer of wood pulp. However, the layers formed according to *Matsumura* are bonded together with an adhesive. See column 9, line 58 through column 10, line 6. Accordingly, *Matsumura* clearly does not teach or suggest the structures of claims 1 and 29 which do not include any bonding agent. To overcome this deficiency, the Examiner relies upon the teachings of *Ruffo*, alleging that *Ruffo* "teaches that the two bonding methods [mechanically interlocking the web and a binder] are known to be equivalent in the art". However, *Ruffo* teaches just the opposite. Specifically, *Ruffo* does not teach that the use of a bonding agent and the mechanical interlocking of the fibers are "equivalent methods of bonding fibrous webs". In fact, *Ruffo* teaches that the "particular type of bonding technique chosen will depend on various factors well-known to those skilled in the art, e.g. the type of fibers, the particular use of the products, etc." See column 12, line 65 through

column 13, line 1. Thus, *Ruffo* does not state that the various bonding methods are equivalent or interchangeable. In fact, *Ruffo* teaches that one of skill in the art must consider the various factors relating to the webs and choose an appropriate bonding technique based on such particular factors. Accordingly, based on the above-mentioned teachings of *Ruffo*, one of ordinary skill in the art would not be motivated to substitute mechanical bonding with the adhesive bonding taught by *Matsumura*. The Examiner relies upon *Fehrer* only for the teaching of a carding element. Thus, *Fehrer* does not otherwise overcome the deficiency of the combination of *Matsumura* and *Ruffo*.

Accordingly, claims 1 and 29 are clearly patentable over the combination of *Matsumura*, *Ruffo* and *Fehrer*.

Claim 16 defines a method of producing an absorbent material that includes directly dry laying cellulose fibers onto a newly formed non-woven gauze of textile fibers to integrate the cellulose fibers with a non-woven gauze and form a mat, wherein the cellulose fibers achieve a sufficient bonding with the textile fibers without any bonding agent. However, the method taught by *Matsumura* relies upon the use of a binder to secure the layers together. See column 3, lines 31-36 and column 9, line 58 through column 10, line 6. The Examiner alleges that *Ruffo* teaches that one of ordinary skill in the art would substitute mechanical interlocking for adhesive binding. However, as set forth above, *Ruffo* does not teach this principle. In fact, *Ruffo* teaches that the particular method of binding, either mechanical or adhesive, is chosen depending upon the various factors. Since *Matsumura* has chosen adhesive binding, Applicants submit that *Ruffo* does not teach that one of ordinary skill in the art would substitute mechanical interlocking for the

adhesive binding. Presumably, one of ordinary skill in the art has already determined that adhesive binding is better for the *Matsumura* process.

Furthermore, as set forth above, *Fehrer* is not relevant to this point. Accordingly, claim 16 is also patentable over the combination of *Matsumura*, *Ruffo* and *Fehrer*.

Claim 26 and 30 include language similar to that in claim 16, and are thus patentable over *Matsumura*, *Ruffo* and *Fehrer* at least for the reasons set forth above. The remaining claims are dependent claims which depend from either 1, 16, 26, 29 or 30, and are thus also patentable over the applied prior art.

Accordingly, the Examiner is respectfully requested to reconsider and withdraw the outstanding rejections.

Claims 4-6 and 11-15 have been rejected under 35 U.S.C. §103(a) as being unpatentable over *Ruffo*. However, claims 4-6 and 11-15 depend from claim 1, and are thus patentable over *Ruffo* at least for the reasons set forth above with respect to the rejection of claim 1 based on *Ruffo*.

Accordingly, in view of the foregoing amendments and remarks, the Examiner is respectfully requested to reconsider and withdraw the outstanding rejections of the application.

New claims 33-36 are dependent claims that depend from claims 1 and 16. They are patentable at least for the reasons set forth above with regard to claims 1 and 16.

In the event that there are any questions concerning this Amendment, or the application in general, the Examiner is respectfully urged to telephone the undersigned attorney so that prosecution of the application may be expedited.

Respectfully submitted,

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